

REMARKS/ARGUMENTS

The Examiner is requiring election of a single Group of claims for further prosecution. The Claims have been divided into Groups as follows:

Group I: Claims 1-10 and 20-23, drawn to a method for continuous vacuum cleaning of a substrate.

Group II: Claims 11-19 and 24-29, drawn to substrates produced with a method of continuous vacuum cleaning.

In addition, the Examiner is requiring an election of species as follows:

- Product Species 1 (claims 11, 18, 19, and 24): a substrate with a high reflection coating that includes a sequence of the following types of layers: a first layer based on metal oxide or semiconductor, a layer of metal oxide or semiconductor deposited on the first layer, a silver layer, a metal layer deposited on the silver layer, and an upper layer comprising metal oxide or semiconductor that is deposited on the metal layer.
- Product Species 2 (claims 12 and 25): a substrate having a thin-film multilayer that has alternating layers of reflective layers and coating layers, wherein the multilayer also includes layers that absorb visible light, and wherein the coating layers comprise one of the following: dielectric, a mixture of silicon and aluminum, silicon oxynitride, and zinc oxide.
- Product Species 3 (claims 13 and 26): a substrate having a thin-film multilayer that has alternating layers of reflective layers and coating layers, wherein the multilayer contains between two dielectric layers a layer of silver or a layer of metal alloy containing a silver.
- Product Species 4 (claims 14 and 27): a substrate having a thin-film multilayer that includes a sequence of the following five layers: a first layer, a dielectric layer deposited on the first layer, a functional layer having reflective properties for infrared and/or solar radiation, a metal layer on a silver layer, an upper layer comprising silicon nitride deposited on the metal layer.
- Product Species 5 (claims 15 and 28): a substrate having a thin-film multilayer that includes a functional layer based on a partially or fully nitrided metal and a layer of aluminum nitride, oxynitride, silicon nitride, or a mixture thereof that is surmounted on the functional layer, wherein the multilayer also includes a transparent dielectric layer between the substrate and the functional layer.
- Product Species 6 (claim 16): a substrate having a thin-film multilayer that includes alternating dielectrics having high or low refractive indices.

- Product Species 7 (claims 17 and 29): a substrate having an electrochemical device on one of its sides.

Applicants elect, with traverse, Group I, Claims 1-10 and 20-23 (drawn to a method for continuous vacuum cleaning of a substrate), for examination.

Since the species elections only pertain to the product species and the claims encompassed in the product Group II, Applicant's have not made a species election.

Restriction is only proper if the claims of the restricted groups are independent or patentably distinct and there would be a serious burden placed on the Examiner if restriction is not required (MPEP §803). The burden is on the Examiner to provide reasons and/or examples to support any conclusion in regard to patentable distinction (MPEP §803). Moreover, when citing lack of unity of invention in a national stage application, the Examiner has the burden of explaining why each group lacks unity with each other group specifically describing special technical features in each group (MPEP § 1893.03(d)).

The Office has asserted that Groups I - II do not relate to a single general inventive concept under PCT Rule 13.1 because under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

“[T]he common technical feature of the two groups is obvious in view of the prior art. The common technical feature between the two groups is the method of claim 1, and the method is obvious in view of U.S. Patent Application Publication No. 2003/0064198 by Thomsen et al. (hereafter referred to as “Thomsen”). Thomsen teaches a method of removing undesired material from a glass substrate when the substrate is in a vacuum environment (Par. 0012, 0054, 0062, 0066). Thomsen teaches using a linear ion source and a mixture of oxygen (reads on *species having a low sputtering efficiency*) and argon to produce a plasma such that the plasma can be directed onto the glass substrate in order to clean the substrate (Par. 0012 and 0066). Although Thomsen does not specifically teach whether the mixture of oxygen and argon comprises predominantly oxygen or predominantly argon, Thomsen does teach that the two gases function differently in the cleaning plasma; argon functions to mill the glass surface and oxygen functions to clean the glass surface (Par. 0054). Since the argon and oxygen gases produce different effects in the plasma, their relative

concentrations within the plasma are considered to be result-effective variables, and in accordance with MPEP 2144.05, *Optimization of Ranges*, it would have been obvious to one of ordinary skill in the art at the time of the invention to optimize the relative concentrations of argon and oxygen in the treatment plasma. Therefore, since the common technical feature of the two groups is obvious in view of the prior art, the two groups lack a common special technical feature.”

Annex B of the Administrative Instructions under the PCT at (b) Technical Relationship states:

“The expression “special technical features” is defined in Rule 13.2 as meaning those technical features that defines a contribution which each of the inventions, considered as a whole, makes over the prior art. The determination is made on the contents of the claims as interpreted in light of the description and drawings (if any).”

Applicants respectfully submit that the Examiner has not provided any indication that the contents of the claims *interpreted in light of the description* was considered in making the assertion of a lack of unity and therefore has not met the burden necessary to support the assertion.

Furthermore, 37 C.F.R. § 1.475(b) states in pertinent part:

“An international or a national stage application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories:

(2) A product and a process of use of said product; . . .”

In addition, The MPEP §806.03 states:

“Where the claims of an application define the same essential characteristics of a *single* disclosed embodiment of an invention, restriction there between should never be required. This is because the claims are not directed to distinct inventions; rather they are different definitions of the same disclosed subject matter, varying in breadth or scope of definition.”

Applicants respectfully submit that the Office has not considered the relationship of the inventions of Groups I-II with respect to 37 C.F.R. § 1.475(b)(2) and MPEP §806.03. Therefore

the burden necessary according to MPEP § 1893.03(d) to sustain the conclusion that the groups lack of unity of invention has not been met.

Accordingly, and for the reasons presented above, Applicants submit that the Office has failed to meet the burden necessary in order to sustain the requirement for restriction.

Applicants therefore request that the requirement for restriction be withdrawn.

Applicants respectfully submit that the above-identified application is now in condition for examination on the merits, and early notice thereof is earnestly solicited.

Respectfully Submitted,

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